5. Operating, Maintaining and Monitoring

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Introduction

This section describes goals, policies and recommended actions for the operations, maintenance and monitoring elements of WEWP. The establishment and implementation of a program that maintains and monitors the efforts of wetland protection, restoration and mitigation is important to the success of a wetland management plan.

The Plan proposes to create a Comprehensive Monitoring and Maintenance Program (CMMP) for all wetland areas designated for protection, and mitigation. The Public Works Department will assume the lead responsibility for implementation and administration of the CMMP. A key element of the CMMP is enhancement and utilization of the multiple use aspects of the resource.

While one of the purposes of the program is to insure successful mitigation efforts, the primary purpose is to insure the health and sustainability of the system as a whole. Traditionally, the Public Works Department has maintained the stormwater drainage system in west Eugene to meet flood control objectives using standards established by the U.S. Army Corps of Engineers and the Natural Resources Conservation Service to protect the health and safety of the community. By maintaining the inherent functions and values of a wetlands system many positive benefits can be realized. These include stormwater conveyance and flood control, water quality improvements, increased aesthetic and recreational values, educational and scientific opportunities, and wildlife habitat improvements.

For mitigation efforts, participation in the CMMP will be mandatory. Maintenance requirements will be addressed during the design and construction phases of mitigation in order to best anticipate the scope and cost of future maintenance activities. The CMMP will contain provisions that require each mitigation project to develop specific standards by which to measure the progress and success of the project as well as a monitoring schedule, annual progress reports and contingency recommendations. A performance guarantee will be required in the form of a bond or other acceptable method to pay costs for future repairs or corrections.

Monitoring for permit compliance and research purposes will aid in determining how to best meet stated goals and performance standards. Vegetation, hydrology, inundation, wildlife, and water quality are the most common indicators of concern. The CMMP will be responsive to monitoring data in order to make necessary adjustments in the field.

Routine maintenance of wetland sites will include vegetation management such as selective plant removal and replacement, dredging, water level manipulation, erosion control, debris and litter removal, and annual inspections to ensure that sites are operating as intended. Non-routine maintenance tasks will include structural repairs and replacement of parts, and sediment removal. Individual sites will be maintained and monitored in accordance with established performance standards.

Finally, the development and implementation of a CMMP is an opportunity to revise the traditional stormwater operations and maintenance practices of the Public Works Department. The incorporation of watershed management principles will advance multiple use objectives while successfully maintaining the resource.

Goals, Policies, Recommended Actions

Goals

5.1 Conserve and enhance wetland functions and values through operations, maintenance and monitoring practices.

5.2 Ensure the long-term health and survival of protected wetlands in west Eugene by incorporating watershed management principles in operations and maintenance practices.

5.3 Demonstrate responsible wetland stewardship by increasing the City's knowledge and understanding of wetland ecology and management and apply that knowledge to operations, maintenance and monitoring practices.

Policies

5.1 Accomplish multiple objectives through a stormwater

Photo: City of Eugene staff preparing the north Green Hill wetland mitigation site, 1998.

management program designed to provide for storm and flood water conveyance, flood storage, water quality improvement, passive recreation, education, and wildlife habitat and biological support in an effective and cohesive way.

5.2 Ensure compliance with the WEWP goals and policies through an operations, maintenance and monitoring program that is responsive to the needs of an evolving ecological system.

5.3 Advance the success of wetland mitigation projects through a comprehensive long range monitoring effort and use the results in on-going operations and maintenance.

5.4 Develop performance standards corresponding to the stated mitigation goals of WEWP and utilize those standards in designing and evaluating an operations and maintenance program.

Recommended Actions

5.1 Review all public works projects for opportunities to create, restore, and enhance wetland functions and values.

5.2 Establish a native wetland plant nursery and seed bank that relate to the biologic habitats of the area. Encourage the recovery of wetland plants within the study area for replanting in nurseries and mitigation projects prior to any construction or maintenance activity.

5.3 Produce an annual report documenting activity in the study area, e.g., mitigation sites, constructed water quality features, and buffer areas. The report may include:

- a record of fill and removal activity
- a description of enhancement, restoration, and mitigation projects
- mitigation bank activity
- maintenance and operations activities
- monitoring data including photographic sampling: ground level (annually) and aerials (every three to five years)
- evaluation of mitigation success in relation to performance standards
- summary of any new technical information or regulatory changes relevant to the study area
- assessments of annual and cumulative impacts and accomplishments
- status of planning and construction of public projects
- building permit activity
- individual permit compliance
- acquisition progress
- financial summary

Present the above annual report to the Eugene Planning Commission and City Council, the WEWP Technical Advisory Committee, and the general public.

5.4 Review the channel maintenance program to determine which alternative technologies are appropriate in order to:

- minimize impacts to wildlife
- reduce bank erosion and sedimentation
- utilize the pollutant removal benefits of channel vegetation

5.5 Restore more natural stream conditions where possible such as:

- establishment of a ‘low flow’ meander in the channel bottom
- increase channel width
- terraced banks
- re-sloping of steep channel banks
- replanting of channel banks with native vegetation
- creation of wetland ‘bench’ areas contiguous with the low flow channel

5.6 Utilize existing natural ditch systems instead of stormwater pipes, where practical, for the conveyance of stormwater, and in the design of new developments.

5.7 Seek support from nonprofit organizations and private volunteers for selected maintenance and monitoring activities.

5.8 Create a public education program to inform the community of stormwater permit requirements, the opportunities that exist to achieve multiple use benefits, and how citizens can participate.

5.9 Develop pilot projects for the establishment of maintenance strategies to help determine methods compatible with multiple use objectives. Pursue grant monies to create these projects.

5.10 Evaluate implementation strategies to establish the best mix of organizational resources to manage the multiple use aspects of WEWP.

5.11 Establish a long term monitoring program designed to evaluate the success of wetland mitigation in relation to established performance standards. The program will apply to newly created, restored, and enhanced wetlands, as well as water quality sites and buffer areas. All sites will be monitored for a minimum period of ten years, or longer if required for compliance purposes.

- collect data on pre-existing wetlands for comparative purposes

- evaluate the success of wetland mitigation in relation to established performance standards

Sampling may include:

- seasonal wildlife evaluation
- annual quantitative monitoring of vegetation establishment, survival and coverage
- hydrological measurement and observation
- water quality analysis
- overview and photographic sampling

Comment: The regulatory standard for monitoring requirements is currently five years. The above recommended action is consistent with this standard though it does not preclude a longer monitoring period requirement on a case-by-case basis in the study area.